

REMARKS

Previously, Applicants filed an Appeal Brief on March 17, 2006 regarding this application, and the present Office Action of June 27, 2006 responded stating that the finality of the rejection is withdrawn; Applicant's request for reconsideration being persuasive. The present Office Action of June 27, 2006, however, presents new grounds of rejection.

Claims 1, 3-4, 6-9, 11, 12, 14-17 and 19-22 are pending in the application, of which all were rejected by the Office Action of June 27, 2006. Reconsideration of the Claim Rejections is requested in view of the following Claim amendments, Remarks, and Examiner Interview conducted on September 21, 2006. Claims 1, 9 and 17 are herewith amended. Claims 23-25 are newly added. No new matter has been added.

A telephonic Examiner Interview was conducted on September 21, 2006, in regard to the above-referenced application. The participants included Examiner Yahveh Comas, Examiner Karl Tamai and Applicants Patent Attorney Jeffrey Wax. No exhibits were utilized during the interview. The Office Action cited references were discussed including Nitta (U.S. Patent 5,604,389). Applicants pending claims were also discussed.

Claims Rejected Under 35 U.S.C. § 103(a)

The Office Action rejects claims 1, 3-4, 6-9, 11-12, 14-17 and 19-22 under 35 U.S.C. 103(a) as being unpatentable over Tagata (JP Patent No. 2000209803) in view of Nitta (U.S. Patent 5,604,389). Applicants traverse the claims rejection to show that obviousness is not established. Features of Applicants claimed invention are not taught or suggested by the references either individually or combined. Further, there is no suggestion or motivation either in the references or in knowledge generally available to one of ordinary skill in the art to modify the references or combine the references.

Applicant's Claimed Invention

Applicant's invention is directed in part at reducing axial height by forming a composite component, for low profile spindle motor. The base plate axial thickness is minimized but motor

stiffness is maintained or improved by forming a composite component of the base plate, stator and motor seal.

By forming a composite component, an axial height reduction of 0.4mm is provided in an embodiment, which equates to a savings of about 12 % of the total space in a 3.3 mm thickness low profile disc drive design. This significant space savings provides a valuable range of possibilities to disc drive performance.

The Office Action cited Tagata reference:

The Office Action states that Tagata discloses Applicants claimed invention except for a bonding substance formed substantially about the stator, substantially filling the separation, and a minimized base plate axial thickness adjacent to the stator.

Applicants agree with the Examiner that Tagata does not teach these features that are described in Applicants claimed invention (Applicants independent claims 1, 9 and 17), but further submits that Tagata teaches away from a bonded and composite component stator, base plate and motor seal. That is, Tagata describes connecting the stator coils to connection lands of terminal tabs through soldering. Tagata describes, in detail, how the connections are made, including using two or more terminal strip sections. (For example, see Tagata, p. 2, par. 6 and 7).

The Office Action cited Nitta reference:

The Office Action states that Nitta discloses a bonding substance formed about the stator, substantially filling the separation between the stator and the base plate. The Office Action further states that it would be obvious to modify Tagata with the Nitta to make obvious Applicants claimed invention. Applicants traverse the rejection. It is submitted that Nitta teaches away from bonding the stator coil and phase windings to the base plate.

In contrast to Applicants claimed invention, Nitta does not bond the coil and phase windings to the base plate. Instead, Nitta shows an L-shaped extension (pawls 18) extending from the base plate, which fits into a hole 17 in the stator core. (see Nitta, FIGs. 4, 5 and 8). Nitta states:

“The stator core 1 is fixed to the base plate 4 by fitting the pawls 18 of the base plate 4 into the holes 17 of the stator core 1. The lower part of each coil 2 is inserted into the corresponding opening 13.” (Nitta, col. 4, lines 41-45).

Further, although Nitta states that a drive coil 10 is molded in resin, the coil and laminator fit inside the drive coil 10. It is the drive coil 10 that is molded in Nitta, and not the coil and laminator, as in Applicants claimed invention. Nitta states: “The stator core 1 and coils 2 are sealed inside the drive coil 10. The molding is accomplished after the stator and the PWB are fitted to the base plate.” (Nitta, col. 3, lines 56-63).

Nitta also fails to teach bonding the stator to a motor seal. The motor in Nitta situates the magnet radially outside of the stator, without a motor seal positioned axially above a stator. In contrast, the present invention describes, in an embodiment, the magnet situated radially inside of the stator, and a motor seal positioned axially above a stator, for low profile motors.

Nitta also describes various embodiments of supplemental members 11 extending from the laminator that protrude away from the base plate, used for reducing axial force between the stator and magnet. In contrast, Applicants claimed invention forms and utilizes a composite component of the stator and base plate, in part, to create motor stability and counter axial forces.

Again, Applicants submit that there is no teaching or suggestion either individually, or combining the references to form a composite component of the base plate, stator and motor seal, wherein the base plate axial thickness is minimized adjacent to the separation, as in Applicants claimed invention.

Nevertheless, Applicants amend independent claims 1, 9 and 17 to recite further features and combinations of features that are patentably distinct and not taught or suggested by Tagata and Nitta even as combined.

Dependent Claims 3-4, 6-8, 11-12, 14-16 and 19-22

It is submitted that Applicants dependent claims 3-4, 6-8, 11-12, 14-16 and 19-22 are allowable for at least the reasons stated above with regard to the independent claims. Further, Applicants dependent claims, and newly added claims 23-25, recite further features and combinations of features that are patentably distinct and not taught or suggested by Tagata and Nitta even as combined.

CONCLUSION

In view of the foregoing, it is submitted that claims 1, 3-4, 6-9, 11, 12, 14-17 and 19-22, as well as new claims 23-25 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If the Examiner believes a telephone conference would be useful in moving the case forward, please contact the undersigned at Tel. (310) 312-1500.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 27, 2006.


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